DOCUMENT RESUME

ED 143 025 CS 203 572

AUTHOR Thompson, David
TITLE Tomorrow is Today: A Plan for Implementing the Study of the Future in the English Classroom.
PUB DATE [77]
NOTE 42p.; Teaching unit used at Remington High School, Whitewater, Kansas ; Reproduced from Best copy available

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Attitude Tests; Curriculum Guides; *English Instruction; *Futures (of Society); *Learning Modules; *Literary Analysis; *Literature Appreciation; Prediction; *Science Fiction; Senior High Schools; Student Attitudes

ABSTRACT

This course, designed to help students explore serious thoughts about the future of society, is intended for an English literature class at the advanced secondary level. The course consists of nine interrelated modules that deal with the following topics: current predictions about the future, with special attention to the film "Future Shock"; predictions made in the past by Jules Verne and Edward Bellamy; predictions from the book "1984" and the likelihood of their occurrence by the year 1984; planning an ideal future; and views of the future expressed in the science fiction of H. G. Wells, Aldous Huxley, Ray Bradbury, and A. E. Van Vogt. Each module includes lists of behavioral objectives, specific activities, and discussion questions. Appendixes provide an informal test of student attitudes about the future, to be given at the beginning and at the end of the course; a glossary of terms; and materials to be used in conjunction with the modules. (GW)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED143025

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

TOMORROW IS TODAY

A PLAN FOR IMPLEMENTING THE STUDY OF THE FUTURE IN THE ENGLISH CLASSROOM

BEST COPY AVAILABLE

by

David Thompson

Remington High School
Whitewater, Kansas

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

David Thompson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS."

CS203572

TOMORROW IS TODAY

A NINE WEEK MODULE FOR ENGLISH 11-12

CONTENTS

I. Rationale to the Teacher..... 1

II. Plan for Implementation..... 4

III. General Course Goals..... 5

IV. Course Content..... 6

A. Module One: INTRODUCTION TO THE FUTURE..... 6

B. Module Two: THE HISTORY OF THE FUTURE..... 9

C. Module Three: THE FUTURE ACCORDING TO H. G. WELLS..... 11

D. Module Four: THE FUTURE ACCORDING TO ALDOUS HUXLEY..... 13

E. Module Five: THE FUTURE ACCORDING TO RAY BRADBURY..... 16

F. Module Six: THE FUTURE ACCORDING TO A. E. VAN VOGT..... 19

G. Module Seven: THE FUTURE ACCORDING TO RAY BRADBURY P.S.. 21

H. Module Eight: ONLY SEVEN YEARS MORE..... 24

I. Module Nine: RE-DEFINING TOMORROW..... 27

V. Appendices..... 29

VI. Acknowledgments and Credits..... 37

RATIONALE TO THE TEACHER

It has been said that the future is the only place in history where man has not left his mark. But this is no longer entirely true, if indeed it ever was. Our generation of thinkers is becoming aware of the serious ramifications that our actions of today will have upon nearly every aspect of future life, both immediate and long-range. Consider, for example, our current energy crisis. We as a nation have been consuming energy products at a most alarming rate of speed. Current conservative estimates of our resources show that if our current usage rate continues to increase at the same rate of speed that has been observed over the last two decades, the world's oil and coal will be nearly depleted in thirty years time. The implications for the future are obvious. Imagine a world in which no cars can operate, no trains, planes or ships can move their world's marketable goods. Imagine a world hungrier than today- one in which the tractors sit idle in the fields for lack of fuel. The consequences are far more devastating than the simple inconvenience of not being able to pull the family power cruiser to the lake on weekends.

There is an alternative. We need a generation of people who are trained to consider the trends in society and where these trends could conceivably lead to. We need a generation of people who are aware, unlike today's masses, that one's present actions may be felt by future generations. We need a generation that not only is aware of the possible consequences of actions, but carefully considers the alternatives available and selects wisely among the options.

There have always been people who possess this peculiar skill of viewing the future as something of prime concern. The problem has never been with those who considered the study of future possibilities, but rather with those who have laughed at the idea that man might be able to project into the future. Probably some of these type of attitudes have been formed as a result of a large number of charlatans and fakirs who saw a chance to cheat someone out of some money. These people represent the unfortunate side of the forecasting coin. Even if we allow them the benefit of the doubt concerning their honesty and sincerity, the fact still remains that they purvey an air of helplessness about the future. For them the future is shrouded in mystery, but fixed and determined. The disservice done by this belief is incomprehensible. On the other, more sensible side of the coin stand the thoughtful scientists and ecologists. They tend to see tomorrow as an extension of today- not in the sense of a perpetuation of the status quo, but in the sense of today's actions shaping the reality of tomorrow's world. In addition, for them the future is fluid, ever changing, either capriciously or by man's design. An adoption of this attitude allows for projections- not as fixed and immovable, but as warnings which can be used to reverse damaging trends. The mysticism of the crystal ball dissipates. It is replaced by a deliberate process of examining the way things are headed, and then forecasting possible consequences. If these outcomes are undesirable, they may be altered by appropriate action. If we assume this attitude, we have a basis or rationale for the importance of the study of the future as a methodical discipline.

This teaching unit does not propose to make experts in forecasting

of your students. Rather it proposes to do what undoubtedly has not yet been sufficiently done- to make your students aware of their responsibility for their actions, and to demonstrate the impact of the past on the present, the present on the future. Only through careful thought can we expect to manipulate any aspect of our future.

PLAN OF IMPLEMENTATION

The following course is designed to be used with rather mature students at the high school level. The course is designed to fit into the study of literature in an English class, and is probably best suited for grades 11-12. It should be understood at the outset that the activities suggested and the questions to be asked are only minimal in scope. The individual teacher should supply any additional procedures and questions pertaining to the literary aspects of the works selected that he feels are needed.

The unit consists of nine interrelated modules which examine different views presented by science fiction authors. Most of the suggested titles contain serious literary value, and all are useful for the points suggested. Most of the works represent a type of science fiction sometimes referred to as social science fiction. Serious social thought is presented through a future dilemma.

While the orientation of the unit is definitely toward literature, some effort has been given to including the belief that the world of tomorrow will be much more interdependent. To achieve this goal, the teacher must be willing to use the unit as much for the process involved as for the literature included. It would be a fair summation to say that the teacher who sees the unit simply as a unique way to present another form or genre of literature has missed the boat entirely.

COURSE GOALS

These goals are intended to be broad and general. Behavioral objectives are considered by the author to be too restrictive for a unit on appreciation of the future, but some suggestions are given at the beginning of each module as to the types of outcomes that a teacher might reasonably expect in relation to the activities. The individual teacher may wish to add or delete objectives and to be as general or specific as is deemed appropriate.

The following broad areas are outlined as goals:

(a) by being presented with a rationale, the student should become aware that the future is a field which is relevant to his life and is worthy of consideration.

(b) the student will experience some of the different "fantasies" of the future as envisioned by serious writers.

(c) the student will hopefully come to see himself as a part of the future rather than apart from it.

(d) the student should see the mental outline of a future he would want to strive for himself.

(e) the student should become aware of his capability to assist in shaping the future he will inhabit.

INTRODUCTION TO THE FUTURE

Module One

BEHAVIORAL OBJECTIVES

At the end of this module the student will be able to:

1. discuss his preconceived ideas of the future in an organized way.

2. state why some of the predictions discussed are more believable than others.

3. react to the values represented in the film FUTURE SHOCK.

4. identify as probable or improbable some of the futuristic concepts presented in the film.

5. define the following "futures" vocabulary:

cyborg	future shock	holography
cloning	cryonics	automaton
imaging	genetic engineering	Ecosystem
Superindustrial	Doomsday Bomb	zero sum game
Spaceship earth	future studies	Luddites/ Neo Luddites

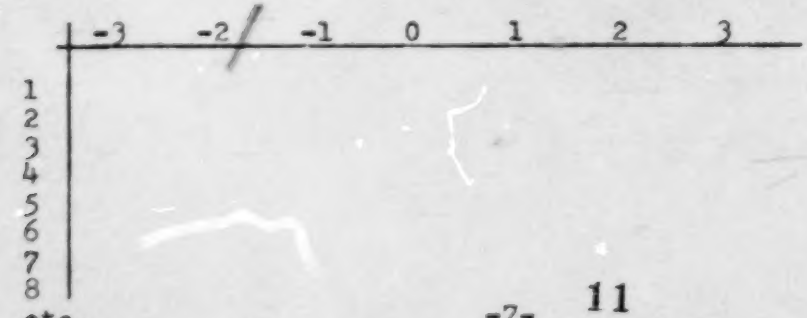
6. identify the concept of time relevance held by most people.

ACTIVITIES

Use of the following activities should produce the outcomes stated in the objectives:

1. students will take the "test" given in Appendix A. This exercise will get your students actively involved in "thinking future" and provide you with a starting point for discussion. When all students have finished, construct on the blackboard a simple pair of axis. The vertical line represents the number of the question and the horizontal represents the response (Figure 1). By a simple hand vote on each question, find out where the majority of opinions lie.

Figure 1.



A hypothetical response to question one in a group of fifteen might be 0 1 2 4 7 1 0. Thus you could conclude that the majority sees a somewhat desirable future as likely.

2. students will view the film FUTURE SHOCK based on the book by Alvin Toffler. Time should be allowed for students to simply respond orally to the presentation in the context of their own value systems. Central to the questions considered should be:

(a) do you see any of this as likely?
(b) have any of these concepts already come about?
(c) is this future desirable or undesirable?
(d) is it believable or not? Why?
(e) what is meant by future shock?

3. Hand out definitions of the terms in Objective Five and go over them with the entire class. Allow plenty of time for questions and discussion. Try not to dominate the discussion- there is likely to be some strong reaction to the concepts presented. The definitions of terms appear in Appendix A.

4. Hand out the diagram on perspectives of time and space found in Appendix A. Be sure students understand that the density of dots represents the amount of time people spend thinking about the various concepts shown. Be sure that your students realize the full impact of the short-sightedness represented here.

5. As a culminating activity, you might ask students to reflect upon the week's activities and to bring out any areas needing further clarification or discussion.

THE HISTORY OF THE FUTURE

Module Two

BEHAVIORAL OBJECTIVES

At the end of this unit the student will be able to:

1. explain how futurism is not new, merely more scientific.

2. name at least three of Jules Verne's predictions that came true.

3. tell when Jules Verne lived and why it is important.

4. name at least three of Edward Bellamy's predictions that came true.

5. tell when Bellamy lived and why it is important.

6. discuss the proximity of time as it relates to the feasibility of a forecast or prediction in people's minds.

7. write an expository piece, poem, or play in which he "envisions" the future.

ACTIVITIES

These activities should assist in the achievement of the objectives:

1. students read some selections from Jules Verne that you assign. Emphasize how he was ridiculed for his "fantasizing". Point out that that which is closer to our contextual perception seems more feasible in terms of possibly coming about.

2. repeat the process with Looking Backward 2000-1887 by Edward Bellamy. Call attention to his true predictions as a reinforcer of the concept in activity 1.

3. As a culminating activity, take two or three days to allow students to "project" on their own by writing an expository piece, a poem, or a play. A list of topics appears in Appendix B. This exercise will assist students in feeling the precariousness that writers like Verne and Bellamy must have felt. When the students are finished, they should present their work to the rest of the class.

THE FUTURE ACCORDING TO H. G. WELLS

Module Three

BEHAVIORAL OBJECTIVES

At the end of this module the student will be able to:

1. identify the course of action in the two books assigned.

2. identify and list the major characteristics of the extra-terrestrials in The War of the Worlds.

3. identify the different human reactions to the invasion in The War of the Worlds.

4. identify the purpose of the time machine in The Time Machine.

5. discuss some of the possible applications of suspended animation.

6. discuss the progress to date in the field of eryonics.

7. discuss which of the two plots read would be considered more realistic by most people.

8. discuss how The Time Machine does not fit our society's practical idea of science fiction as well as The War of the Worlds.

ACTIVITIES

These activities will assist in reaching the stated objectives:

1. read The Time Machine and The War of the Worlds by H. G. Wells.

2. compile a blackboard list in a discussion session of the characteristics of the space creatures in War of the Worlds. How do these creatures fit in with our notions of what space creatures are like? Has the writer complied with our expectations of science fiction?

3. discuss the human emotions at the time of the invasion in War of the Worlds which range from mild curiosity to panic. Try to get students to become aware in their own initiative of the presence of that thing called future shock. Are these reactions typical? Judging from the reactions, what people are most likely to survive? You should press for identification with the idea that those who adapted survived.

4. The discussion of suspended animation would be a good time to re-introduce the term cryonics. Press for a two-column list of advantages and disadvantages eg., preserving a Hitler. As students generate ideas, you should record them on the board for further discussion. Be sure that the students understand the reality of cryonics by bringing them up to date on what has happened in this fascinating area thus far.

5. Divide the class in half. Each group is assigned a position pro or con on the morality of cryonics. Each group leader, selected by the group, will present their findings to the class. The issue can then be opened up for debate. Some caution in an exercise such as this would be wise, since people's religious values may create a highly emotional state.

6. As a culminating activity, ask the class to share opinions on which story would be more acceptable to society as a likely possibility to occur. Since the answer is likely to be The War of the Worlds, try to spark some random thoughts on why twenty years ago people would have laughed at the idea of extraterrestrials while today they would admit to a serious possibility of such beings. Further point out that our generation would probably laugh at the impossibility of space/time travel. Is it possible that our concepts of likelihood will change again? If well conducted by the teacher, students will begin to form an impression of the future as possibly being fluid rather than static.

THE FUTURE ACCORDING TO ALDOUS HUXLEY

Module Four

BEHAVIORAL OBJECTIVES

At the end of this module, the student will be able to:

1. identify the purpose of the types of beings in Brave New World.

2. identify five capabilities common to us that were futuristic when Huxley was writing.

3. identify the major conflict in Brave New World.

4. identify the societal attitudes toward non-participants.

5. relate Objective Four to our present society.

6. compare/contrast the human process in Brave New World with The War of the Worlds with reference to fatalistic/alterabilistic views of the future.

ACTIVITIES

The following activities should help in achieving the objectives:

1. students should read Brave New World.

2. ask one of your better students to summarize the action, allowing others to amend and add. If yours is a typical class, the caste system won't be recognized as such. To help students realize the significance of this type of system, randomly assign students the roles of Alpha, Beta, Gamma, Delta and Epsilon. Ask each one to describe his particular societal function. Then present a valuing question of are they content with their roles, first from the point of view of the caste member, and then from their own personal view. This might be a good time to refresh memories on the concepts of genetic engineering and eugenics. What current capabilities are we perfecting that could conceivably lead to such a society (i.e., test-tube fetuses)? At this point bring in the role of The Savage. What does he represent? What is society's attitude toward him? How does he respond? How is this analogous to our society?

3. in Activity two you touched upon Objectives Three, Four, and Five, among others. You might wish to go back at this time and review some of the concepts presented concerning non-participants and the resultant peer pressure. This is a good means of pointing out to students our intolerance of individual

differences. Explore the concept of is different necessarily bad.

4. Since you are about halfway through the unit, you can use this activity to provide you with a progress check. You should share the results with your students, but be very careful not to convey any valuing on your part of the results. Students must not feel the need to seek your approval. The activity provides a check on positive/negative attitudes toward the future. The point of reference is the "test" students took in Activity one in Module One. You can see if attitudes have changed in any way. This midway test is located in Appendix C. Administer the test using the instructions given. You should examine the answers in private to be prepared for the direction taken. Bring the tests back to class and re-construct the axis results from Module one. Then to one side construct a diagram as shown in Figure 2:

	TOTALS
Metaphor #1	
Metaphor #2	
Metaphor #3	
Metaphor #4	

Then by simple hand vote, ask students which metaphor concerning the future they chose and enter the total. A quick comparison will show any significant shifts in attitude thus far.

5. As a final point, quickly poll your students on which of the metaphors they think Huxley represented in Brave New World. If the students attended well, they will see fatalism as predominant. This can provide a comparison/contrast discussion of Wells' approach in War of the Worlds.

THE FUTURE ACCORDING TO RAY BRADBURY

Module Five

BEHAVIORAL OBJECTIVES

By the end of this module the student will be able to:

1. reduce the political scene in Fahrenheit 451 to a single recognizable term.

2. identify at least one similar historical political party.

3. identify the major goals of Fascism.

4. identify any groups in the U.S. who have fascist principles.

5. assess those groups' relative influence in our society.

6. discuss what conditions now present in our society which if intensified might bring about a new fascist state.

ACTIVITIES

These activities will assist in achieving the objectives:

1. In beginning the discussion, students will likely remark on the novelty of the firemen's occupation. Use this as a vehicle to lead into a discussion of the role of government as we perceive it and as perceived in the story. Consider these questions:

   (a) what is the role of the citizen?
   (b) what attitudes are expected of the citizen?
   (c) does the individual count for anything?
   (d) how does the government view itself?
   (e) what are the government's responsibilities?
   (f) what recent U.S. events are analogous?
   (g) what countries have you studied that have had similar forms of government in the twentieth century?

2. Ask one student in advance to prepare a report on Nazi Germany. Ask him to try to condense the general foundations of Fascism into four or five statements.

3. If at all possible, try to bring into class a resource person from the community to talk who has a special interest in the Nazi years. You can nearly always find someone who remembers the Nazi administration. Ask that person to discuss

(a) the origins of the movement (b) the role of concentration camps, especially Auschwitz and Dachau (c) the disbanding of the party and especially where its survivors may be (d) and the role of the party in the U.S. today.

4. Go back and review the rise to power. Ask students if they have observed any similarities to these conditions in the U.S. i.e., race relations, monoculturism, monotheism, etc. You probably should not assume any role of prosecuter, since that is likely to produce negative reactions rather than concern for the betterment of conditions.

THE FUTURE ACCORDING TO A. E. VAN VOGT

Module Six

BEHAVIORAL OBJECTIVES

At the end of this module the student will be able to:

1. describe the plot of the story read.

2. classify the story into one of the science fiction categories.

3. make a values statement regarding the feasibility of such a future.

4. identify some elements in our society that could help bring about such conditions.

ACTIVITIES

These activities will help achieve the objectives:

1. students should read 200 Million A.D. by A. E. Van Vogt.

2. discuss the plot of the story bringing into play the characteristics of the characters. Be sure to bring up these questions:

   (a) in what obvious ways are the characters different from us?
   (b) what do they share in common with us?
   (c) what overriding concern is present in 200 million a.d. that was present in 1976, 1865, 1776 and all the other postulated years?
   (d) does the author see the basic nature of man as static or fluid?

3. review the categories of science fiction and try to place this book in one of them. Since students will be too eager to jump to conclusions, you should be prepared to play the devil's advocate in attempting to lead them toward the term social science fiction.

4. ask students to write a position regarding the possibility of such a future. Since they are likely to dismiss it as remote, incorporate in your instructions that they must defend their position against the historical prejudice experienced by Verne, Orwell, et. al.

5. in a quick brainstorm session, gather ideas on what possibilities in our society confirm that such a future might emerge, eg. data banks.

THE FUTURE ACCORDING TO RAY BRADBURY P.S.

Module Seven

BEHAVIORAL OBJECTIVES

At the end of this module the student will be able to:

1. report on the development to date in holography.

2. project a future in an assigned scenario.

3. identify types of people likely to survive a nuclear holocaust.

4. discuss the changes in occupations that might be brought about by space travel.

5. identify advantages/disadvantages of computer uses.

6. recognize his desire for a future.

ACTIVITIES

These following activities should help achieve the objectives:

1. students should read The Illustrated Man. The suggested activities make special use of the following stories which deal with human concerns and values:

(a) 'The Veldt'
(b) 'Kaleidoscope'
(c) 'The Highway'
(d) 'The Rocket Man'
(e) 'The City'

The following questions should be dealt with:

'The Veldt'

(a) what is holography?
(b) the Hadley children use their holographic fun room for evil purposes. How could such a technique be used for good? By you? By schools? By hospitals?
(c) if you were the Hadley family's counselor, what advice would you give concerning treatment for the Hadley children?

'Kaleidoscope'

(a) find out when a person is legally dead in your state. When is Hollis dead in this tale?
(b) write your own personal scenario for 'Kaleidoscope'. You are another crew member drifting off in space. What are your thoughts? Regret? Celebration? Nostalgia?

(c) what ways of dying exist now that did not exist in say 1800? Will there be new ways in 2025? Does it matter how you die? Do you have a preferred way? Do you fear a particular way? Do you feel any different about Stone's death than any of the others?
(d) write an obituary notice for Hollis.

'The Highway'

(a) get a world map and find Mexico City and the U.S. border. Put Hernando between the two. Circle the area you think a nuclear bomb would most affect. What areas might be untouched? What kind of people would be living there? What might a post-war population consist of? What type of society would remain?

'The Rocket Man'

(a) would you consider being a Rocket Man after reading this story? A Rocket Man's wife?
(b) space travel will obviously bring about many occupational changes. Can you think up other occupations people might be involved in?

'The City'

(a) do you think the story is ridiculous? Impossible? What can computers do today? Think up some good things they do. Try to imagine some bad things. Do you see computers as more or less important in the future?

2. role-play a need for survival, using the activity in Appendix D. The intent of this exercise is to bring home a point that in spite of our fears, we all want a future, regardless of its uncertainty. The suggestion may be made later that people when forced to will seek to alter their fate even when they profess they don't believe that it is possible.

ONLY SEVEN YEARS MORE

Module Eight

BEHAVIORAL OBJECTIVES

At the end of this module the student will be able to:

1. identify some elements of 1984 which are already here.

2. make a personal statement about Orwell's success as a predictor.

3. identify some items unlikely to occur by 1984.

4. identify some items likely to occur by 1984.

5. select a date by which most or all of the predictions may occur.

6. point out some historical events which lead to the achieving of his "true predictions" (Orwell's).

7. identify at least two modern trends that could lead to further fulfillment.

ACTIVITIES

These activities should assist in achieving the objectives:

1. students should read 1984.

2. have students attempt to identify elements of 1984 that exist now. You should make a blackboard list to keep track.

3. have students break into small groups to construct a two-column list of the predictions in 1984. The columns are: LIKELY TO OCCUR and UNLIKELY TO OCCUR. Have students record these on large sheets of paper which can be hung at the front of the room to be discussed.

4. discuss current society in terms of identifying trends that could lead to more of 1984 e.g., current work in mind control, chemical and other; data banks' personal profiles; open records policies, etc.

5. using the list of "likelies" from Activity three above, construct a time line on the board in five-year segments beginning with the present as in Figure 3:

Figure 3

Allow students to "guesstimate" when the events will occur just for fun. This serves an additional purpose of making students think concretely. Emphasize, however, that these are guesstimations and specific predictions cannot be relied upon.

RE-DEFINING TOMORROW

Module Nine

BEHAVIORAL OBJECTIVES

At the end of this module students will be able to:

1. re-define his original futures position.
2. demonstrate his ability to select an alternative future.
3. postulate a planned-for future.

ACTIVITIES

These activities will assist in achieving the objectives:

1. students should retake the test in Appendix A. Repeat the matrix as before, identifying any shifts in either direction. Students can compare their first answers with their new ones. Regardless of the direction of any shifts, the result is a more informed perspective than before on the part of the student.

2. have students split into groups of three where they cannot overhear each other. Put them to work on the problem given in Appendix E. The outcome will be an exercise in weighing the consequences of actions in a more concrete way than in previous exercises.

3. as a culminating activity students should describe in individual compositions the future they would like to see. They must of course limit themselves to one aspect only, but they must explain how they will bring about the goals they have established. The hope is that they will see themselves as a part of change instead of apart from it.

APPENDIX A

What Fundamental Beliefs About the Future Do You Hold?[1]

Here are fifteen statements about the future. Please indicate your opinion of each statement by circling one of the numbers beneath it, according to the following key:

-3= strongly disagree
-2= disagree
-1= somewhat disagree
0= uncertain
3= strongly agree
2= agree
1= somewhat agree

1. From a broad historical viewpoint the human race is moving toward a more desirable future.

-3 -2 -1 0 1 2 3

2. The future is largely predetermined, at least in all of its important aspects. Individuals, therefore, play out an historically necessary role, i.e., people are swept along by forces over which they have little control.

-3 -2 -1 0 1 2 3

3. An array of alternative futures, both desirable and undesirable, are open to mankind at any point in time.

-3 -2 -1 0 1 2 3

4. A prediction is not basically different from a forecast.

-3 -2 -1 0 1 2 3

5. If one could completely dissect all the forces operating in the present, one could accurately predict the future.

-3 -2 -1 0 1 2 3

6. It is possible to have knowledge of the future.

-3 -2 -1 0 1 2 3

7. The most surprising future we can imagine is one in which there are no surprises. It is unreasonable to expect a future in which there are no surprises.

-3 -2 -1 0 1 2 3

8. Today we can predict outcomes in the social order about as well as we can predict outcomes in the natural order.

-3 -2 -1 0 1 2 3

9. Generally speaking, the future was more foreseeable for pre-modern man than it is for modern man.

-3 -2 -1 0 1 2 3

10. Modern approaches to forecasting the future, i.e., attitudes, techniques and beliefs, don't differ basically from approaches used by pre-modern man.

-3 -2 -1 0 1 2 3

11. The real purpose of futures forecasting is to help us to make better decisions in the present.

-3 -2 -1 0 1 2 3

12. A useful side effect of futures forecasting is that it helps us to understand the present better.

-3 -2 -1 0 1 2 3

13. Without forecasting there can be no freedom of choice.

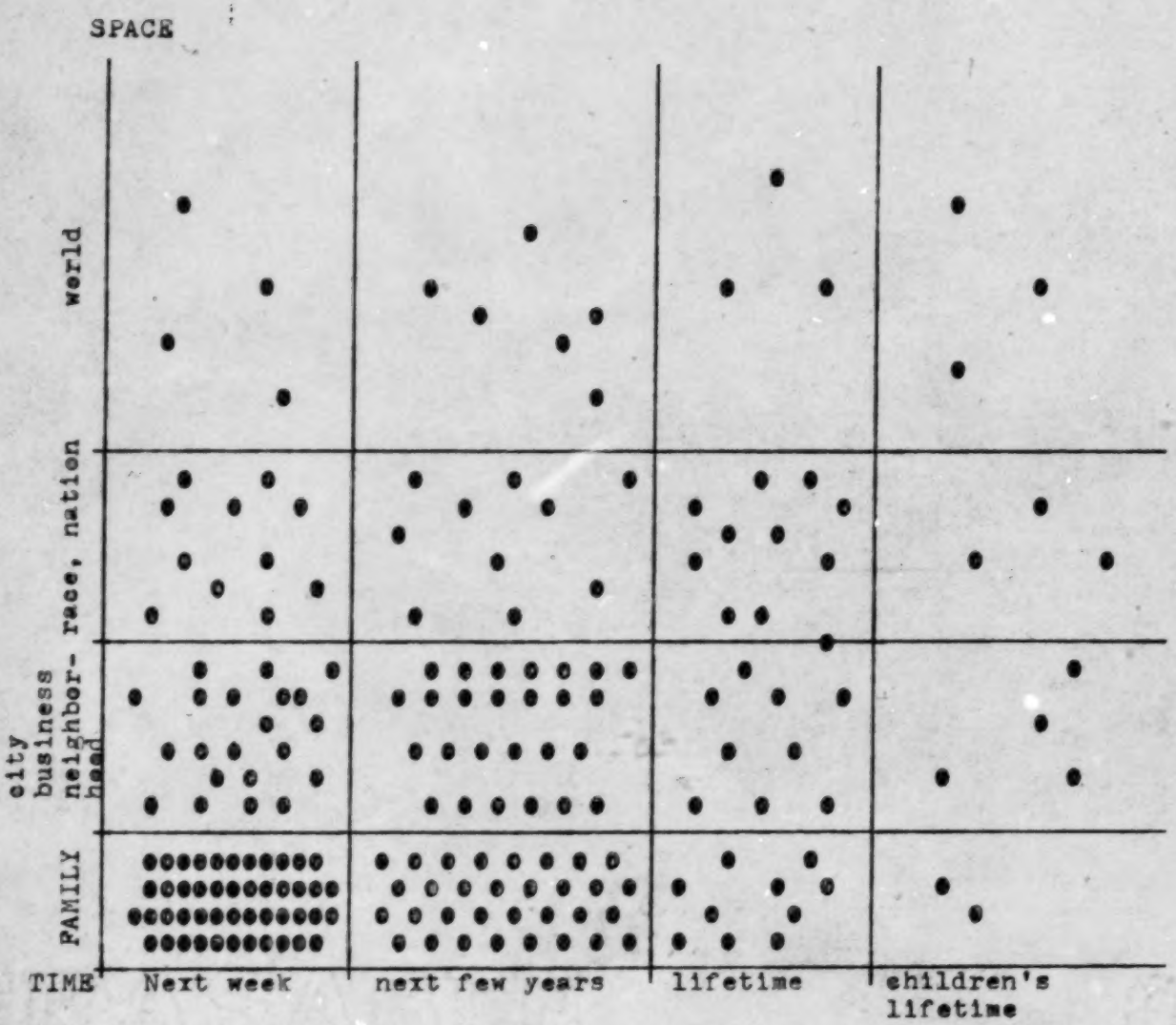
-3 -2 -1 0 1 2 3

14. How one thinks about the future is intimately connected with how one deals with social and interpersonal relationships.

-3 -2 -1 0 1 2 3

15. The future 20 years from now is very likely to be completely different from the present.

-3 -2 -1 0 1 2 3



"PERSPECTIVES ON TIME AND SPACE"[2]

DEFINITIONS OF TERMS

cyborg-	a creature half human and half machine, e.g. a person with an artificial heart, kidney, liver, and a computer-linked intelligence.
cloning-	a system of genetically reproducing an exact replica of a biological model.
imaging-	forming mental pictures of alternative futures. These images can form the basis for writing scenarios, games, dramatics, etc.
Super-industrial	the age after industrialism. This is viewed as being the end of bureaucracy and materialism.
Spaceship Earth	a term used by futurists which indicates the basic completeness of the earth as a self-sufficient system. Wastes can be recycled to maintain optimum environment. Looking within the system for answers is desired.
future shock	is a psychological malady resulting from too much change in too little time.
cryonics	the science of freezing objects to be restored to life at a later date when technology will permit.
genetic engineering	the process of altering or manipulating genes in order to create a new form.
Doomsday Bomb	the highly publicized neutron bomb.
future studies	study of trends and their logical consequences to provide a basis for intelligent selection of alternatives.
holography	interaction of laser beams and an object to produce a three-dimensional image.
automaton	a type of being which responds automatically to commands.
Ecosystem	an ecologically balanced system of interacting components, e.g., an aquarium is an ecosystem; earth is also one.
zero sum game	a model of limited resources, producing a win/lose set-up.
Luddites/ Neo-Luddite	a frenetic group of traditionalists in England 1811-16 who tried to wreck all weaving machines in an attempt to preserve the old ways. Neo-Luddites believe we can prevent the future by preventing anything new.

APPENDIX B[3]

1. Describe an opening day of school, 2025.
2. A conversation with my "pet" computer.
3. A letter to my Martian pen pal.
4. Describe a sporting event, 2025.
5. Build a story around a computerized robot doctor who insists that his male patient is pregnant.
6. A computerized robot coroner insists his patient is dead- the patient knows he isn't.
7. A computerized robot city clerk insists the couple applying for a marriage license are identical twins.
8. You are a cyborg. Which of your parts need repair most often?
9. Your brain broke. You have been given someone else's brain. What are you like? Describe a day in your diary.
10. There is no ground left for burying people. Discuss ways to dispose of bodies. Cremation is out- too much pollution.
11. You've just discovered your father is an android. Have a heart-to-heart talk with your parents.
12. The year is 2025. You've been stopped by an android police officer. Make him understand that your grandmother in Detroit is dying and you have fifteen minutes to get there.

APPENDIX C

METAPHORS FOR THE FUTURE[4]

1. The future is a great roller coaster on a moonless night. It exists, twisting ahead of us in the dark, although we can see each part as we come to it. We can make estimates about where we are headed, and sometimes see around a bend to another section of track, but it doesn't do us any real good because the future is fixed and determined. We are locked in our seats, and nothing we may know or do will change the course that is laid out for us.

2. The future is a mighty river. The great force of history flows inexorably along, carrying us with it. Most of our attempts to change its course are mere pebbles thrown into the river: they cause a momentary splash and a few ripples, but they make no difference. The river's course can be changed, but only by natural disasters like earthquakes or landslides, or by massive, concerted human efforts on a similar scale. On the other hand, we are free as individuals to adapt to the course of history either well or poorly. By looking ahead, we can avoid sandbars and whirlpools and pick the best path through any rapids.

3. The future is a great ocean. There are many possible destinations, and many different paths to each destination. A good navigator takes advantage of the main currents of change, adapts his course to the capricious winds of chance, keeps a sharp lookout posted, and moves carefully in fog or uncharted water. If he does these things, he will get safely to his destination (barring a typhoon or other disaster which he can neither predict nor avoid).

4. The future is entirely random, a colossal dice game. Every second, millions of things happen which could have happened another way and produced a different future. A bullet is deflected by a twig and kills one man instead of another. A scientist looks at a spoiled culture and throws it away, or looks more closely at it and discovers penicillin. A spy at the Watergate removes a piece of tape from a door and gets away safely, or he forgets to remove the tape and changes American political history. Since everything is chance, all we can do is play the game, pray to the gods of fortune, and enjoy what good luck comes our way.

***After students have read the metaphors, ask them to re-read and re-consider carefully the options. Without telling them your purpose, ask them to select one that best describes their feelings.

APPENDIX D

ROLE-PLAY[5]

This activity is adaptable to individual writing, role-play, or group discussion.

A Neptunian with an ALLKILL device lands on earth tomorrow. He threatens to kill all people on earth unless you (the first person he encounters) can give sufficient reason that we be allowed to live. Give your defense of the human race.

APPENDIX E

GROUP PROCESS[6]

Imagine that you are one of three speakers addressing a conference on mind-controlling drugs. One speaker argues that these drugs can be used wisely to promote health and happiness. The second argues that they will provide nothing but escape and turn us into a race of "happy sheep." The third speaker maintains that they should be used only to control "antisocial behavior." Choose your position, prepare your case, and prepare your arguments to refute the other two speakers.

ACKNOWLEDGMENTS AND CREDITS

1. The futures "test" in Appendix A What Fundamental Beliefs About the Future Do You Hold? is taken from Teaching the Future: A Guide to Future-Oriented Education by Draper L. Kauffman. RTC Publications, Palm Springs, Calif., pp. 71-72.

2. The Perspectives on Time and Space diagram in Appendix A is also from Kauffman, p. 60.

3. The suggested topics in Appendix B are from Teaching Tomorrow Today: A Guide To Futuristics by Ronald T. LaConte. Bantam Books, Inc., New York, N.Y., pp. 43, 73-75. Some of the topics used have been modified slightly.

4. The handout on Metaphors for the Future are also from Kauffman, pp. 64-65.

5. The role-play activity in Appendix D is from LaConte, p. 73.

6. The group process device in Appendix E is from LaConte, p. 73.